

ISSUE SUP STAPLE AREA (for additional cross-references)

|       | ISS        |  | E AREA (for additional cross-references) |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|       |            | ISSUI  | NG CLASSIFICATION                        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OR    | IGINAL     | CROSS REFERENCE(S)                           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CLASS | SUBCLASS   | CLASS  | SUBCLASS (ONE SUBCLASS PER BLOCK)        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|       |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| INTER | NATIONAL   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|       | SIFICATION |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|       |            |  | INDEX OF CLAIMS                          |  |  |  |  |  |  |  |  |  |  |  |  |  |

| ,  | Ш               |               | Т.  | <u> </u>         |                  |           |          | _        |          |          |               |          | L                      | nE   | <del>V</del> C | VE I     | CL   |  |          | un   | 100  | Oi  | 1 158        | ue .               | JIIP            | 1113     | iuc      |          | 0 0      | acı      | 101            |          | _        |
|----|-----------------|---------------|---|------------------|------------------|-----------|----------|----------|----------|----------|---------------|----------|------------------------|--|----------------|----------|--|--|----------|--|--|-----|--------------|--------------------|-----------------|----------|----------|----------|----------|----------|----------------|----------|----------|
|    |                 |               |   |                  | Dala             | -44       |          | т.       |          |          | mar           | .in      |                        |  |                | <b>7</b> | ÇL,  | -UIM<br>N  | 3        |  |  | lon | elec         | ted                | Α               |          |          |          | ممه      | eal      |                |          |          |
| ŗ  | -               |               |   | /                |                  |           | +        | (118     | yıı      | *1124    |               |          | Canceled<br>Restricted |  |                |          | N<br>  |  |          | I  | interference                                     |     |              | A Appeal O Objecte |                 |          |          |          | d        |          |                |          |          |
| ſ  | Clai            |               | ١   |                  |                  | Dat       | æ        |          |          | ]        | Cla           | im       |                        |  |                | _ [      | Date   |  |          |  |  |     | Cla          |                    |                 |          |          |          | ate      |          |                |          | _        |
|    |                 | - 5           | 3/2   | 13               | 27               | T         | T        | Т        | Т        | 1        | $\overline{}$ | T        | П                      | Т  | Т              | Т        | П  |  |          |  |  |     |              | _                  |                 | - [      | ١        | . ]      | - 1      | - 1      | Ì              | ł        |          |
|    | _ [             | <u></u>       | 10  | 10               | ス                |           | -        |          |          |          | _             | Original |                        | - 1  |                |          | - 1  | -  |          | -  |  |     | - I          | Original           |                 | - 1      | 1        | -        | ı        | - [      |                | l        |          |
| ·  | Final           |               | 9   | 32               | K                | 7         |          |          | 1        |          | Final         | δ        | -                      |  |                | ı        | - 1  |  |          |  |  |     | Flnai        | δ                  | ı               | - 1      | - [      | Ì        | ı        |          | -              | ı        | -        |
|    |                 | Ž,            | T   | [3]              | 7                | +         | +        | 4        | +        | ł        | F             | 51       | -+                     | +  | +              | $\dashv$ | -  | $\dashv$   | +        | -  |  |     |              | 101                |                 | +        | $\dashv$ | ╗        | $\dashv$ | -        | $\dashv$       | $\dashv$ | ┥        |
| 1  | <b>14</b>       | 14            | 4   | 4                | 1                | 4         | +        | 4        | ┿        | ł        | -             | 52       | -+                     | +  | +              | $\dashv$ | -+   | $\dashv$   | -+       | $\dashv$   | -  |     | Н            | 102                | $\dashv$        | $\dashv$ | +        | -        | ┪        | -        | $\dashv$       | -        | $\dashv$ |
|    | W               | ₹V            | W   | ₩                | Ш                | 4         | +        | +        |          | 1        | $\vdash$      | 53       | -                      | +  | -+             | $\dashv$ | $\dashv$   | -+   | $\dashv$ |  |  |     | Н            | 103                | $\dashv$        | +        | $\dashv$ | -+       | ┪        | $\dashv$ | 十              | $\dashv$ | $\dashv$ |
| 1  | A I             | #             | 41  | Щ,               | A                | -+        | +        | +        | ┿        | ł        | -             | 54       | -+                     | +  | +              | +        | -  | $\dashv$   | -+       | ┥  |  |     | H            | 104                | $\dashv$        | 十        | $\dashv$ | $\dashv$ | ┪        | -        | $\dashv$       |          | $\dashv$ |
|    | 14              | 11            | Д.  | WH               | $\sqcup$         | 4         | 4        | +        |          | ł        | $\vdash$      | 55       | -+                     | +  | +              | +        | $\dashv$   | $\dashv$   | +        | -1   | _  | 1   | $\vdash$     | 105                |                 | ┰        | +        | $\dashv$ | ┥        | $\dashv$ | $\dashv$       | $\dashv$ | ⊣        |
|    | 141             | 1             | ₩.  | ĮΨ               | Ш                | -+        | -        | +        |          | ł        | $\vdash$      | 56       | +                      | -+   | +              | $\dashv$ | -+   | $\dashv$   | -+       | -  |  |     | Н            | 106                | $\dashv$        | -        | +        | ┪        | $\dashv$ | -        | $\dashv$       | -+       | $\dashv$ |
| -  | Al              | 3₩            | ₩   | $\mathbb{A}_{A}$ | 44               | -+        | +        | +        |          | ł        | ⊢             | 57       | +                      | ┵  | +              | ┥        | -  | $\dashv$   | $\dashv$ |  | _  |     | $\vdash$     | 107                | -+              | $\dashv$ |          | $\dashv$ | ┪        | +        | $\dashv$       | ┪        | $\dashv$ |
|    | Щ               | 11            | *\  | 4/4              | M                | -+        | +        | +        | +        | 1        | $\vdash$      | 58       | $\dashv$               | $\dashv$   | +              | -+       | -  | $\dashv$   |          | -  |  |     | -            | 108                | $\dashv$        | $\dashv$ | -+       | -        | ┪        |          | $\dashv$       | -        | ᅥ        |
| 1  | $\mathbb{H}$    | 41            | 44  | W-               | //               | -+        | +        | +        | +-       | 1        | $\vdash$      | 59       | +                      | -+   | +              | ╛        |  | $\dashv$   | -+       | $\dashv$   |  |     | -            | 109                | _               | $\dashv$ | +        | $\dashv$ | -        | -        | 十              | -        | ⊣        |
|    | 4.1             | 1             | ₩   | 1                | 4                | +         | +        | ╀        | ╫        | -        | $\vdash$      | 60       | +                      | ᅪ  | $\dashv$       | $\dashv$ |  | $\dashv$   | $\dashv$ |  |  |     | -            | 110                | -+              | $\dashv$ | -+       | -        | $\dashv$ | 一        | ┪              | _        | ᅥ        |
|    |                 | 蚁             | - 11  | 44               | М                |           | +        | +        | +        | 1        | $\vdash$      | 61       | $\dashv$               | +  | $\dashv$       | +        | $\dashv$   | $\dashv$   | +        | $\dashv$   | -  |     | -            | 111                |                 | ┪        | +        | -        | $\dashv$ | $\dashv$ | +              | -+       | $\dashv$ |
|    |                 | 1h )          | ٨V  | +#               | ₩                | -+        | +        | +        | +        | 1        | $\vdash$      | 62       | $\dashv$               | ∸┼   | +              | +        | -+   | $\dashv$   | -+       | $\dashv$   | -  |     | -            | 112                | ⊢┤              | -+       | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$       | $\dashv$ | $\dashv$ |
|    |                 | 1             | <del>\                                     </del> | 44               | $\mathbb{H}^{A}$ | -+        | +        | +        | +        | 1        | $\vdash$      | 63       | $\dashv$               | +  | $\dashv$       | -        | +  | $\dashv$   | -+       | -  |  |     | Н            | 113                | Н               | -+       | $\dashv$ | 1        | $\dashv$ | ᅥ        | $\dashv$       | -+       | $\dashv$ |
|    | ш               | 18  /<br>18   | ₩.  | W                | H                | -         | +        | +        | ╫        | 1        | $\vdash$      | 64       | $\dashv$               | +  | +              | $\dashv$ | $\dashv$   | -  | -+       |  | -  |     | -            | 114                | Н               | $\dashv$ | ┰        |          | $\dashv$ |          | -+             | $\dashv$ | $\dashv$ |
|    |                 |               | #\  | <i>\\</i> -      | М                | $\dashv$  | +        | +        | +        | 1        | $\vdash$      | 65       | $\dashv$               | $\dashv$   |                | $\dashv$ |  | -  | $\dashv$ | $\dashv$   | -  |     | -            | 115                | $\vdash \vdash$ | $\dashv$ | $\dashv$ |          | $\dashv$ | -1       | _              | 一        | -        |
|    |                 | Λί.<br>1Β;    | $\forall H$                                       | 4-               | ⊬₩               | $\dashv$  | +        | +        | +        | ┨        | $\vdash$      | 66       | $\dashv$               | $\dashv$   | +              | $\dashv$ |  |  | -        | ᅱ  | $\vdash$   |     | <b>—</b>     | 116                | $\vdash \vdash$ | $\dashv$ | -+       | +        | $\dashv$ | -1       | $\dashv$       | 一        | $\dashv$ |
|    |                 | 刮             | ₩   | <del>    </del>  | ⊬                | -+        | +        | ┵        | +        | ┨        | -             | 67       | $\dashv$               | ╅  | -+             | -        | $\dashv$   | -  | $\dashv$ | _  | _  | ł   | <u> </u>     | 117                | $\vdash$        | +        | _        | _        | ┪        | -1       | $\neg$         | _        | ヿ        |
|    |                 | 斱             | ₩   | 1                | $\mapsto$        | $\dashv$  | +        | +        | +        | ┨        | $\vdash$      | 68       | -+                     | +  | $\dashv$       | -+       | $\dashv$   | -+   | -        |  |  | 1   | <u> </u>     | 118                | $\vdash$        | $\dashv$ | _        | -        | $\neg$   |          | $\neg$         | 一        | ╛        |
| ĺ  |                 | 15/           | #   | Α¥               | k A              | $\dashv$  | +        | -+       | +-       | ┨        | $\vdash$      | 69       | -                      | $\dashv$   | +              | $\dashv$ | $\dashv$   | $\dashv$   | -+       |  | -  |     | <del> </del> | 119                | $\vdash$        | _        | - †      | _        | $\neg$   |          | $\dashv$       | 一        | 7        |
|    | $\omega$        |               | -1)   | (HA)             | ₩                | +         | +        | ┵        | +        | -        | -             | 70       | $\dashv$               | -+   | +              |          | -  | ┪  | -1       | _  | <u> </u>   | 1   | <u> </u>     | 120                | H               | _        | _        | ┪        | _        |          | $\neg \dagger$ | $\neg$   | ⊣        |
|    |                 | 20 \<br>21    | ₩   | ₩,               | Н                | -+        | -+       | +        |          | ┨        | $\vdash$      | 71       |                        | -  | -              |          | -  | +  | -        | -  | -  | 1   | $\vdash$     | 121                |                 | ┪        | +        | -        | 一        |          |                | ┪        | -        |
|    |                 | 22            | Ж   | Æ                | A                | $\dashv$  | +        | +        | +        | ┨        | $\vdash$      | 72       |                        | 十  | $\dashv$       | -+       |  | -  | -        |  | ╁╌   | 1   | -            | 122                | Н               | ┪        | -        | $\neg$   | $\neg$   | $\neg$   | $\dashv$       | ╛        | ᅥ        |
|    |                 | 多             | 417   | (1}              | ⊬₩               | +         | +        | +        | -        | ┨        | $\vdash$      | 73       | $\dashv$               |  | $\dashv$       | _        | -1   | -  | $\dashv$ | _  | ┈  | 1   | -            | 123                | H               | 寸        | _        | -        |          |          |                | ╛        | $\neg$   |
|    |                 | 24            | *   | +                |                  | +         | $\dashv$ | +        | +        | ┨        | $\vdash$      | 74       | -                      |  | +              | $\dashv$ |  |  | -1       |  | -  | 1   | $\vdash$     | 124                | Н               | _        | +        | $\dashv$ |          |          | $\dashv$       |          | $\dashv$ |
|    | _               | <del>25</del> | <del>//</del> ,                                   |                  | ┤                | $\dashv$  | +        | +        | +        | ┨        | $\vdash$      | 75       | $\dashv$               | -  | ┪              | $\dashv$ | -1   |  | $\dashv$ |  | -  | 1   | $\vdash$     | 125                | Н               | 寸        | _        | ᅥ        | _        |          | $\neg$         | $\neg$   |          |
|    | 1_1             | 26            | ∸   | +-               | Н                | -+        | $\dashv$ | ╅        | +        | ┪        | $\vdash$      | 76       |                        | $\dashv$   | -              | $\dashv$ |  | $\dashv$   | _        |  | $\vdash$   | 1   |              | 126                | П               | $\neg$   | ┪        |          |          |          | $\Box$         | $\neg$   |          |
| -  | <del> -</del> ; | _             | <del>/\</del>                                     | 4                | +                | +         | -+       | $\dashv$ | +        | ┨        | -             | 77       | $\vdash$               | $\dashv$   | -+             |          | $\dashv$   |  | $\dashv$ |  | <del>                                     </del> | 1   | $\vdash$     | 127                | Н               |          | ┪        | _        |          | $\neg$   | П              |          |          |
|    | Н               | 28            |   | 4                | 1.1              | $\dashv$  | +        | +        | +-       | ┨        | -             | 78       |                        | -  | _              | ┪        |  |  | $\dashv$ | _  |  | 1   |              | 128                |                 | $\dashv$ | $\dashv$ | _        |          | $\neg$   | $\sqcap$       |          | П        |
|    | Н               | 29            |   | 4/               | H                | $\dashv$  | +        | $\dashv$ | ╅        | ┨        | $\vdash$      | 79       | Н                      | $\dashv$   | ┪              |          |  |  | -        |  | $\vdash$   | 1   | -            | 129                | Н               |          | _        |          |          |          | П              |          |          |
|    | Н               | 30            | 쒸   | <del>4</del>     | H                | -         | $\dashv$ | +        | +        | ┨        | $\vdash$      | 80       |                        |  | -+             | -        | $\vdash$   | Н  |          |  | -  | 1   | $\vdash$     | 130                | М               | _        | 一        |          |          |          | П              |          |          |
|    | Н               | 31            | 4   | Ή₹               | 13               | -         | +        | -+       | +        | ┨        | $\vdash$      | 81       |                        |  | $\dashv$       | $\dashv$ | ш  |  |          |  | t  | 1   |              | 131                | П               |          | 寸        |          |          |          | $\sqcap$       |          |          |
|    | Н               | 32            | <del>, k</del>                                    | <del>' [,`</del> | 17               | $\dashv$  | -+       | +        |          | 1        | $\vdash$      | 82       | H                      | _  | $\dashv$       |          |  | _  |          |  | _  | 1   | $\vdash$     | 132                | Г               | $\Box$   | •        |          |          |          | П              |          |          |
|    | Н               | 33            | ₩   | $\mathcal{A}$    | ₩                | $\forall$ | +        | -+       |          | +        | $\vdash$      | 83       | Н                      | -  | ┪              | $\neg$   | _  | $\vdash$   |          |  |  | 1   |              | 133                | $\vdash$        |          |          |          |          |          |                | П        |          |
|    | H               | 34            | Αb  | ₩                | ₩                | $\vdash$  | +        | ┪        | +        | 1        | $\vdash$      | 84       | Н                      | -  | -              | -        |  | -  |          |  | ╁  | 1   | $\vdash$     | 134                |                 | $\dashv$ |          |          | _        | П        | П              | П        |          |
|    | H               | 35            | <del>(                                    </del>  | ₩                | ₩                | $\vdash$  | -+       | ┪        | ╌        | ┨        | $\vdash$      | 85       | Н                      | 一  |                | _        | _  |  |          | $\vdash$   | 1  | 1   | $\vdash$     | 135                |                 |          |          |          |          | П        | П              | П        | П        |
|    | $\vdash$        | 36            | ₩   | $\forall$        | 1                | $\dashv$  | +        | $\dashv$ | +        | ┨        | -             | 86       | Н                      | $\dashv$   | _              | _        | -  |  |          |  | <del>                                     </del> | 1   | $\vdash$     | 136                | П               |          |          |          |          |          | П              |          | П        |
|    | ₩               | 37            | <del>Al-</del>                                    | ╫╌               | $\mathcal{M}$    | H         | $\dashv$ | $\dashv$ | -+       | 1        | -             | 87       | Н                      |  | $\dashv$       |          | П  |  |          |  | $\vdash$   | 1   |              | 137                | T               | П        |          |          |          | Г        | П              |          | П        |
|    | $\mathcal{H}$   | 3             | T K   | ₩-               | ₩                | H         | -+       | ┪        | +        | ┨        | $\vdash$      | 88       | Н                      |  |                |          |  |  |          | $\vdash$   | T  | 1   |              | 138                |                 |          |          |          | Т        | T        | П              | П        | П        |
|    |                 | **            | M   | /-               | ╁                | Н         |          | ┪        | -+-      | ┨        | -             | 89       | Н                      |  | $\neg$         |          | $\vdash$   |  | $\vdash$ | ┢  | 1  | 1   | $\vdash$     | 139                | 1               |          |          |          | _        | Г        | П              |          | П        |
|    | $\mathbb{H}$    | 40            |   | H                | ₩                | Н         | $\dashv$ | -1       | $\dashv$ | ┨        | $\vdash$      | 90       | $\vdash$               | $\vdash$   |                |          | 1  | $\vdash$   | -        | Н  | t  | 1   | $\vdash$     | 140                |                 | П        |          |          | Г        | 1        |                | $\Box$   |          |
|    | H               | 41            | $I \setminus I \setminus I$                       |                  | 1-1              | Н         |          | 一        | +        | 1        | Н             | 91       | $\vdash$               | Н  |                | _        |  | 1  |          |  | $\vdash$   | 1   |              | 141                | T               |          |          |          |          | T        |                |          |          |
|    | $\mu$           | 42            | ₩   | ₩-               | 1                | Н         | $\dashv$ | $\dashv$ | +        | 1        | 卜             | 92       | $\vdash$               | Н  |                |          |  | $\vdash$   | $\vdash$ | 一  | T  | 1   |              | 142                |                 |          |          |          | ✝        | T        | Г              | Г        |          |
| :  | -               | 43            | +   | +                | 1,7              | Н         | $\vdash$ | $\dashv$ | +        | $\dashv$ | 十             | 93       | $\vdash$               | Н  | $\dashv$       |          | <del>                                     </del> | $\vdash$   |          | Г  | T  | 1   |              | 143                | 1               | П        | П        |          | Π        | 1        | Г              |          | П        |
| •  | $\vdash$        | 44            | +   | +                | 1                | H         | Н        |          | $\dashv$ | $\dashv$ | -             | 94       | ┢                      | Н  | $\vdash$       |          |  | <del>                                     </del> | $\vdash$ | Т  | T  | 1   |              | 144                |                 | П        | Г        | T        |          | 1        | Г              | Г        | П        |
|    | H               | 45            | +   | +                | +>               | $\vdash$  | Н        | $\dashv$ | $^+$     | $\dashv$ | -             | 95       | t                      | Н  |                |          | $t^-$  | $\vdash$   | T        | Т  | T  | 1   | _            | 145                | 1               | П        | $\vdash$ | 1        |          |          | П              | Г        |          |
|    | -               | 46            | +   | -+-              | ╁                | H         | Н        | $\dashv$ | +        | $\dashv$ | 十             | 96       | $\vdash$               | $\vdash$   | $\vdash$       |          | <del>                                     </del> | t  | $t^-$    | T  | $t^-$  | 1   | 1            | 146                |                 | T        | <u> </u> | Г        |          | T        |                |          | П        |
|    | 1               | 47            | $\vdash$  | +                | ┿                | Н         | Н        | $\dashv$ | +        | ┨        | $\vdash$      | 97       | 1-                     | <del>                                     </del> | $\vdash$       | _        | <del>                                     </del> | <u> </u>   | T        | Г  | T  | 1   |              | 147                |                 | П        | Г        | Τ        | Τ        | Τ        |                | Г        | T        |
| \  | $\vdash$        | 48            | $\vdash \vdash$                                   | +-               | +-               | $\vdash$  | Н        | $\dashv$ | $\dashv$ | $\dashv$ | -             | 98       | t                      | Н  | _              | _        |  | $t^-$  | t        | <del>                                     </del> | T  | 1   |              | 148                | 1               |          |          | T        | 1        | T        | Г              | Г        | Π        |
| ثے | <b>}</b>        | 49            | $\vdash$  | +                | +                | $\vdash$  | Н        | $\dashv$ | $\dashv$ | $\dashv$ | 十             | 99       |                        | Η  | П              |          | <del>                                     </del> | 1  | <u> </u> | Τ  | †  | 1   |              | 149                |                 | П        | Г        | T        | Γ        | T        | Г              | Π        | Г        |
|    | 둒               | 50            | $\vdash \vdash$                                   | ╌┼╌              | +                | $\vdash$  | Н        | Н        | -        | $\dashv$ | $\vdash$      | 100      | 1                      |  | М              |          |  | 1  |          | T  | T  | 1   | $\vdash$     | 150                |                 | Г        | Т        | T        | Τ        | T -      | П              | Π        |          |
| 5  | <u> </u>        | بَيْ          | ـــــــــــــــــــــــــــــــــــــــ           |                  |                  | <u> </u>  | Lif.     | mر       | re th    | <br>Ian  | 15            | 0 cla    | im                     | s or   | 9 2            | cti      | ons  | sta  | ple      | ac   | dit  | ion | al s         | heet               | he              | Γ        |          |          | _        |          |                |          |          |
| 2  | -> :            | ئي            |   |                  |                  |           | *1       |          | 🗸 u      |          |               |          |                        |  | •              |          | J  | J.,  |          |  |  |     | -            |                    |                 |          |          |          |          |          |                |          |          |